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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,124	07/07/2004	Hiroataka Uzawa	TIP 026	6055

7590

09/20/2006

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PHILADELPHIA, PA 19123

EXAMINER
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HENRY, MICHAEL C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/501,124

Applicant(s)

UZAWA ET AL.

Examiner

Michael C. Henry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/07/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

The following office action is a responsive to the Amendment filed, 04/07/06.

The amendment filed 04/07/06 affects the application, 10/501,124 as follows:

1. New Claims 9-20 have been added. This leaves claims 1-20.

The responsive to applicants' arguments is contained herein below.

Claims 1-20 are pending in the application

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-20 are rejected under 35 U.S.C. 102(b) as anticipated by George et al. (JP 2001261692, Abstract Only).

Claim 17 is a product-by-process claim wherein the applicants claims a nanoscale self-aggregate made in the process of claim 9. George et al., disclose applicant's nanoscale self-aggregate (see abstract). A quotation from the MPEP (Manual of Patent Examining Procedure, 8 ed., August 2001) pertaining to Product-by-Process Claims is given below in order for further corroborate the reason for the aforementioned rejection. The quotation states that "PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product

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in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).” Claims 18-20 which are product-by-process claims that are drawn to said nanoscale self-aggregate, are also encompassed by the aforementioned rejection. It should be noted that applicant’s claim to foreign priority over Japan 2002-49238 (02/26/2002) has not been perfected, since an English translation of the said foreign priority document is not filed.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

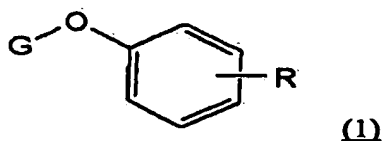
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ikemato et al. (JP 2000204030A, English Translation).

In claim 1, applicant claims a nanoscale self-aggregate comprising O-glycoside type oligolipid having a structure represented by the general formula (1),



wherein G represents an oligosaccharide radical composed of two to thirty monosaccharides, and R represents a hydrocarbon group containing six to twenty-five carbon atoms. Claims 2-3, 5 are drawn to said compound or composition wherein the hydrocarbon is in the meta position relative to the –O-G group and the oligosaccharide is a disaccharide. Ikemato et al. disclose applicant's compound of formula (1) which is called 3-hydroxy-5-(8-pentadececenyl)-phenyl-D-maltoside or (3-hydroxy-5-(8-pentadececenyl)-phenyl-D-maltoside (see page 5, line 27). Ikemato et al. is silent about the physical property that pertains to the nanoscale self-aggregation of the compound. However, Ikemato et al.'s silence does not mean that the compound does not exist as a nanoscale self-aggregate. Ikemato et al. anticipate the claims if their composition also exist as a nanoscale self-aggregate. Ikemato et al. render the claims as being obvious if their composition is substantially close with respect to having the claimed limitation pertaining to nanoscale self-aggregates. Also, claims 2-3 and 5 are encompassed by the aforementioned rejection. Furthermore, it should be noted that to be patentable, a novel form of an old compound must possess a new utility or a utility of a different type. A mere improvement in properties does not render a novel form of an old compound patentable. In re Weijland, 587 O.G. 3, 33 C.C.P.A. 837, 154 F.2d 133; 1946 C.D. 175, 69 USPQ 86; Ex parte Hald, Paper 15 in U.S. Patent No. 2,647,145.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

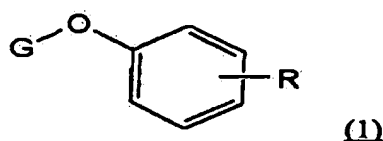
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

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in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikemato et al. (JP 2000204030A, English Translation).

In claim 1, applicant claims a nanoscale self-aggregate comprising O-glycoside type oligolipid having a structure represented by the general formula (1),



wherein G represents an oligosaccharide radical composed of two to thirty monosaccharides, and R represents a hydrocarbon group containing six to twenty-five carbon atoms. Claims 4, 6-8 are drawn to said compound or composition wherein the hydrocarbon is in the meta position relative to the -O-G group, the oligosaccharide is a disaccharide and the oligosaccharide is lactose.

Ikemato et al. teach a subgenus that is fully embraced by the instant claim. Ikemato et al. disclose a (cardanol glycoside) subgenus wherein G represents is a mono- or oligo saccharide radical and R represents an unsaturated hydrocarbon group (see abstract). This implies that in Ikemato et al.'s glycoside, G can be an oligosaccharide radical such as lactose and R can be any unsaturated hydrocarbon group including groups with six to twenty-five carbon atoms. In addition, Ikemato et al. disclose that such O-glycoside type oligolipid can be used in cosmetic (see abstract). Ikemato et al. is silent about the physical property that pertains to the nanoscale self-aggregation of the compound. However, Ikemato et al.'s silence do not mean that the compound does not exist as a nanoscale self-aggregate.

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Ikemato et al. fail to recite a specific compound or the physical property of the compounds, but suggest a compound that read on the claimed invention (see abstract).

It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made to have prepared any compound suggested by the subgenus of Ikemato et al. and to determine the physical properties of the compound such as the self-aggregation property, in order to use them in cosmetics.

One having ordinary skill in the art would have been motivated, to prepare any compound of a subgenus with a reasonable expectation that the compounds would have the utility of the subgenus as a whole. Therefore one skilled in the art would have been motivated to make specific compounds of the subgenus of Ikemato et al. and to determine the physical properties of the compound such as the self-aggregation property, in order to use them in cosmetics.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

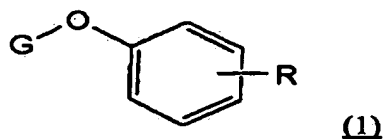
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (JP 20001261692, Abstract Only).

In claim 9, applicant claims "A process for preparing a nanoscale self-aggregate, comprising dispersing an O-glycoside type oligohpoid in water, heating the dispersion, allowing

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the dispersion to cool naturally, wherein the O-glycoside type oligolipid has a structure represented by the general formula (1)



wherein G represents an oligosaccharide radical composed of two to thirty monosaccharides, and R represents a hydrocarbon group containing six to twenty-five carbon atoms. Claims 10-16 are drawn to said compound or composition wherein the hydrocarbon is in the meta position relative to the -O-G group, the oligosaccharide is a disaccharide and the oligosaccharide is lactose.

George et al. disclose a process for preparing a nanoscale self-aggregate, comprising dispersing an O-glycoside type oligolipid in water, heating the dispersion, allowing the dispersion to cool naturally, wherein the O-glycoside type oligolipid has a structure represented by the general formula (1), wherein G represents an monosaccharide radical composed of an aldose residue (see abstract). Furthermore, George et al. disclose that the compound can be useful as liposome materials, stabilizers and emulsifiers.

The difference between applicant's method and the method of George et al. is that George et al.'s compound or composition contains only one monosaccharide residue whereas applicant's compound contains two to thirty monosaccharide residues (see abstract). However, George et al. suggest that glycosides can be prepared by said method. This implies that compounds containing more than one monosaccharide residue, such as two monosaccharide residues, can be prepared by George et al.'s process.



It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made to have used the method of George et al. to prepare any O-glycoside type oliglipid suggested by George et al. such as an O-glycoside type oliglipid containing two monosaccharide residues, in order to use them as liposome materials, stabilizers and emulsifiers.

One having ordinary skill in the art would have been motivated, to use the method of George et al. to prepare any O-glycoside type oliglipid suggested by George et al. such as an O-glycoside type oliglipid containing two monosaccharide residues, in order to use them as liposome materials, stabilizers and emulsifiers.

***Response to Amendment***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

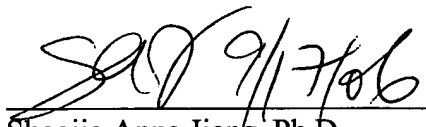
The applicant argues that Ikemoto does not explicitly or inherently teach or suggest the manufacture of nano-scale self-aggregates of any type and therefore Ikemoto compound or composition is not a nano-scale self-aggregate. However, applicant has not provided any evidence to demonstrate that the compound used by Ikemoto is of a different physical state (i.e. does not exist as nano-scale self-aggregates) as compared to applicant's compound. It should be noted that Ikemoto's compound is the same as applicant's compound (see page 5, line 27). In addition, it should be noted that to be patentable, a novel form of an old compound must possess a new utility or a utility of a different type. A mere improvement in properties does not render a novel form of an old compound patentable. In re Weijland, 587 O.G. 3, 33 C.C.P.A. 837, 154 F.2d 133; 1946 C.D. 175, 69 USPQ 86; Ex parte Hald, Paper 15 in U.S. Patent No. 2,647,145.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8.30am-5pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Henry

  
Shaojia Anna Jiang, Ph.D.  
Supervisory Patent Examiner  
Art Unit 1623

September 16, 2006.